

**RHIC Procedure****PHENIX Muon Identifier Table Tilt Procedure**

Text Pages 1 through 3


**Hand Processed Changes**

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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**REVISION CONTROL SHEET**

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## **PHENIX Muon Identifier Table Tilt Procedure**

### **1.0 Purpose and Scope**

The purpose of this procedure is to prescribe the PHENIX Muon Identifier Table Tilt Procedure.

### **2.0 Responsibilities**

2.1 Authorized operators for this procedure shall perform the tasks described herein.

### **3.0 Prerequisites**

3.1 You must have a current BNL Safety Awareness Certificate (SAC).

3.2 You must be trained in accordance with the BNL ES&H Standard 1.6.1 for the equipment to be used in this procedure. Training shall be documented with the RHIC Training Coordinator.

3.3 All drawing numbers referenced include the 105-0213 prefix unless otherwise specified.

3.4 Personnel involved in this lift procedure shall wear hard hats in accordance with BNL ES&H Standard 1.6.0.

### **4.0 Precautions**

4.1 Some sections of this procedure will require the Operator to work in close proximity to suspended loads. Do not permit yourself or anyone else to be positioned under the load.

4.2 Some operations will need to be performed at a height of 20 feet. These operations are marked as 20\*.

4.3 Lock out bridge crane.

4.4 Secure area from unauthorized personnel traffic.

### **5.0 Procedure**

5.1 Roll the unistrut track (item 3, Drwg. -201) onto cam followers on top rail of panel, while held in horizontal position in assembly table (Drwg. -200).

5.2 For large panel only, disengage side rail toggle clamps.(N/A for small panels.)

- 5.3 Install safety stops (Drwg. -212) in each end of unistrut track.
- 5.4 Maneuver the lift beam (Item 2, Drwg. -201) to the head of the assembly table and unistrut track with the monorail hoist using 500 lb. capacity slings in choker fashion.
- 5.5 Engage the lift beam with alignment pins (on item 9, Drwg. -200) on the assembly table.
- 5.6 Attach the lift beam to the unistrut track with seven grade 8 bolts (items 7 and 8, Drwg. -201).
- 5.7 Insert locking bolts (SHCS 3/8-18 x 2 Lg.) through the unistrut track and through matching holes in the panel top rail. Push in safety stop pins (Item 2, Drwg. -212). (If not pushed in, these will engage automatically as assembly table/panel is lifted into the vertical position.) Remove the 500 lb. capacity slings from the lift beam.
- 5.8 Attach the monorail hoist hook to C-fixture (item 3, Drwg. -200)

5.9 BEFORE ELECTRIC HOISTS AVAILABLE:

Access the monorail hoist chain on a man-lift and operate above the panel.

ONCE ELECTRIC HOISTS AVAILABLE:

Operate electric monorail hoist standing safely away from area underneath load.

- 5.10 Lift the assembly table and panel into vertical position (90 degrees) and engage the table latches (Drwg. C-002-0500-005) on the assembly table pivot legs. Avoid excessive tension when near the vertical position. Once available, use a load cell fixture to monitor lifting force and limit force to less than 3000 lbs.
- 5.11 Move chains to front of the panel.
- 5.12 Move the monorail hoist hook from the assembly table C-fixture to the lifting eye in the lift beam (20\*).
- 5.13 Disengage bottom rail toggle clamps.
- 5.14 Lift the lift beam and panel off of alignment pins on top rail of assembly table.
- 5.15 Maneuver panels away from assembly table to far end of monorail hoist travel.
- 5.16 Rotate panel 180 degrees about a vertical line bisecting the panel.
- 5.17 Maneuver panel back to assembly table.
- 5.18 Adjust assembly fixture center plane.

- 5.19 Lower lift beam (and panel) onto alignment pins on top beam of assembly table.
- 5.20 Engage bottom rail toggle clamps.
- 5.21 Move the monorail hoist hook from the lifting eye in the lift beam to the assembly table C- fixture (20\*).
- 5.22 Apply tension to the monorail hoist chain connected to the C- fixture, then release table latches

5.23 BEFORE ELECTRIC HOISTS AVAILABLE:

Access the monorail hoist chain on a man-lift and operate above the panel and lower the assembly table into horizontal position.

ONCE ELECTRIC HOISTS AVAILABLE:

Operate electric monorail hoist standing safely away from area underneath load and lower the assembly table into horizontal position.

- 5.24 Detach lift beam from unistrut track.
- 5.25 Remove lift beam with 500 lb. capacity slings used in the choker fashion.
- 5.26 Remove unistrut track.
- 5.27 Lock in the table latches in open position on the pivot legs.

**6.0 Documentation**

None

**7.0 References**

- 7.1 BNL ES&H Standard 1.6.0, Material Handling: Equipment & Procedures
- 7.2 BNL ES&H Standard 1.6.1, Material Handling: Operator Training and Qualifications
- 7.3 DOE Hoisting & Rigging Manual

**8.0 Attachments**

None